

VACUUM SUB MINIATURE C-TYPE FEEDTHROUGHS & ACCESSORIES

BIOTECHNOLOGY PHOTOVOLTAICS DISPLAY TECHNOLOGIES OLED/PLED NANOTECHNOLOGY A
MEMS NIGHT VISION AEROSPACE SEMICONDUCTOR SUPERCONDUCTOR OPTICAL & WEB COATER



REFRIGERATION LASER TECHNOLOGY DATA STORAGE MASS SPECTROMETRY THIN FILM PHARMAC
AUTOMOTIVE LIGHTING SURFACE ANALYSIS R&D HIGH ENERGY PHYSICS HEAT TREATING DISPLA

Products for All Applications

Subminiature-C Multipin Feedthroughs

These multipin hermetic feedthroughs are designed for space-constrained applications where Subminiature-D feedthroughs are too large to be used. The Subminiature-C's compact design allows small flange mounts, 1.33"CF and QF16 style flanges can be used.

Subminiature-C feedthroughs come in 9-pin configurations. The gold-plated pins are in a straight-through design, hermetically sealed, and electrically insulated in a stainless steel shell using a glass-ceramic seal.

Both the atmosphere side and vacuum side connectors are fitted with socket head screws that provide a locking mechanism to the feedthroughs, also acting as a keyway for alignment. Vacuum side Kapton insulated cables are used along with PEEK connectors for the demands of UHV applications.

Features

- 9-pin configuration
- 250° C High-Temperature Rated
- UHV Compatible Construction
- CF and QF Flange Mounts
- Kapton Insulated Vacuum Cables
- PEEK Vacuum Connectors
- Delrin Atmosphere Connectors
- Custom Versions Available on Request

Individual Cable Assemblies

These contact-fitted individual leads are sold in packs of 10 and are ideal for complex wiring requirements. They are non-bundled cables and may be used along with connectors to make custom cables.

Specifications:

- 600VAC, 2kVDC
- 2A
- Silver Plated Copper Conductor
- Kapton Type-F Film Insulated
- Vacuum Range: 1×10^{-10} Torr
- Temperature: 250° C
- Gold Plated Ni-Fe Alloy Pins/sockets

Individual Cable Assemblies

Part Number	Service	Type	Length
FTACVK119P	UHV	Male	19"
FTACVK139P	UHV	Male	39"
FTACVK119S	UHV	Female	19"
FTACVK139S	UHV	Female	39"

Air Side Cable Assemblies

Specifications:

- Delrin Connector
- 600VAC, 2kVDC
- 2A
- Silver Plated Copper Conductor
- PVC Insulated
- Gold Plated Ni-Fe Alloy Pins/sockets

Air Side Cable Assemblies

Part Number	Length	Type	Connector OD	Connector Length
FTACAC948SC	48"	Female	0.60"	0.75"
FTACAC996SC	96"	Female	0.60"	0.75"

SPECIFICATIONS

Specifications

- Voltage: 300VDC
- Current: 5A Maximum at 20° C

Materials

- Shell: Stainless Steel
- Pins: Ni-Fe Alloy, Gold Plated
- Seal & Insulation: Glass-Ceramic
- Connector, Air: Delrin
- Connector, Vacuum: PEEK

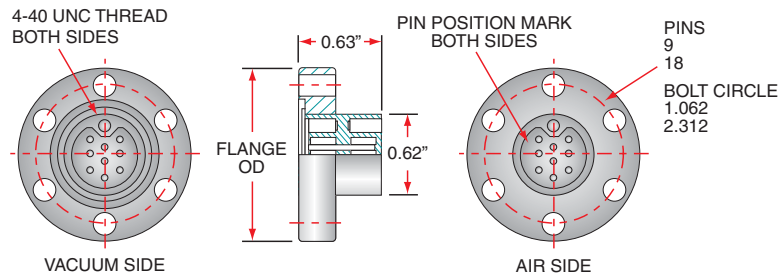
Vacuum Range

- UHV: 1×10^{-10} Torr
- HV: 1×10^{-8} Torr

Temperature Range*

- Feedthrough: 250° C
- CF Flange: 450° C
- QF Flange: 150° C
- Connector, Air: 80° C
- Connector, Vacuum: 250° C
- Thermal Gradient 25° C per minute

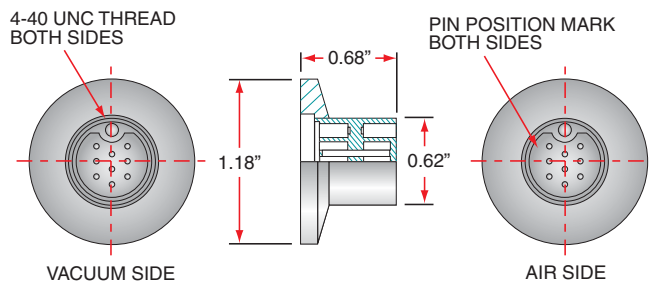
*Assembly temperature ratings must be adjusted to that of the lowest rated component.



CF Flange Mount

Part Number	Flange Size	# of Pins	Conductor Material	Description
IFDJG091052K	1.33"CF	9	Gold-Plated Ni-Fe	9-Pin Feedthrough Kit, 1.33"CF*
IFDJG091052	1.33"CF	9	Gold-Plated Ni-Fe	9-Pin Feedthrough, 1.33"CF
IFDJG091053	2.75"CF	9	Gold-Plated Ni-Fe	9-Pin Feedthrough, 2.75"CF
IFDJG181053	2.75"CF	18 (2x9-Pin)	Gold-Plated Ni-Fe	(2)x9-Pin Feedthrough, 2.75"CF

*Kit includes air and vacuum connectors with 8" and 19" cable lengths, respectively



QF Flange Mount

Part Number	Flange Size	# of Pins	Conductor Material	Description
IFDJG091058K	QF16	9	Gold-Plated Ni-Fe	9-Pin Feedthrough Kit, QF16*
IFDJG091058	QF16	9	Gold-Plated Ni-Fe	9-Pin Feedthrough, QF16
IFDJG091058B	QF40	9	Gold-Plated Ni-Fe	9-Pin Feedthrough, QF40
IFDJG181058B	QF40	18 (2X9-Pin)	Gold-Plated Ni-Fe	(2)x9-Pin Feedthrough, QF40

*Kit includes air and vacuum connectors with 8" and 19" cable lengths, respectively.

Connectors & Contacts

Part Number	Service	Connector OD	Connector Length	Description
FTAC09MV	UHV (PEEK)	0.60"	0.50"	Male PEEK Connector, No Contacts
FTAC09FV	UHV (PEEK)	0.60"	0.75"	Female PEEK Connector, No Contacts
FTAC09FA	Air (Delrin)	0.60"	0.75"	Female, Delrin, No Contacts
FTACCONTM	Air/UHV	N/A	N/A	Male Contacts, 10/Pack, Accepts Up To .043" Wire
FTACCONTF	Air/UHV	N/A	N/A	Female Contacts, 10/Pack, Accepts Up to .043" Wire
FTACCT	N/A	N/A	N/A	Crimp Tool

Products for All Applications

Round Cable Assemblies

Specifications:

600VAC, 2kVDC

2A

Silver Plated Copper Conductor

Kapton Type-F Film Insulated

Vacuum Range: 1×10^{-10} Torr

Temperature: 250° C

Gold Plated Ni-Fe Alloy Pins/Sockets



Connector Fitted Cable

Round cable assemblies are fitted with PEEK male or female connectors at one end and non-terminated wires at the other. Female connectors mate directly onto the vacuum side of Subminiature-C feedthroughs, or with male in-vacuum cable connectors.

Connector Fitted Cable

Part Number	Service	Connector Type	Length
FTACVC919PC	UHV	Male	19"
FTACVC939PC	UHV	Male	39"
FTACVC919SC	UHV	Female	19"
FTACVC939SC	UHV	Female	39"

Cable to Contact

Please note, the Round Cable to Contact style cables do not include PEEK connectors and will not allow connectors to be installed. Wires must be threaded through the connector back-shell before crimping contacts (please see Individual Cable Assemblies for cables that may be used along with connectors).

Cable to Contact

Part Number	Service	Connector Type	Length
FTACVC919P	UHV	Male	19"
FTACVC939P	UHV	Male	39"
FTACVC919S	UHV	Female	19"
FTACVC939S	UHV	Female	39"

Extension Cable

Extensions round cable assemblies are fitted with PEEK female connectors at both ends. Female connectors mate directly onto the vacuum side of Subminiature-C feedthroughs, or with male in-vacuum cable connectors.

Extension Cable

Part Number	Service	Connector Type	Length
FTACVC19CC	UHV	Female	19"

Ribbon Cable Assemblies

Specifications:

600VAC, 2kVDC

2A

Silver Plated Copper Conductor

Kapton Type-F Film Insulated

Vacuum Range: 1×10^{-10} Torr

Temperature: 250° C

Gold Plated Ni-Fe Alloy Pins/Sockets



Connector Fitted Cable

Ribbon cable assemblies are fitted with PEEK male or female connectors at one end and non-terminated wires at the other. Female connectors mate directly onto the vacuum side of Subminiature-C feedthroughs, or with male in-vacuum cable connectors.

Connector Fitted Cable

Part Number	Service	Connector Type	Length
FTACVR919PC	UHV	Male	19"
FTACVR939PC	UHV	Male	39"
FTACVR919SC	UHV	Female	19"
FTACVR939SC	UHV	Female	39"

Cable to Contact

Please note, the Ribbon Cable to Contact style cables do not include PEEK connectors and will not allow connectors to be installed. Wires must be threaded through the connector back-shell before crimping contacts (please see Individual Cable Assemblies for cables that may be used along with connectors).

Cable to Contact

Part Number	Service	Connector Type	Length
FTACVR919P	UHV	Male	19"
FTACVR939P	UHV	Male	39"
FTACVR919S	UHV	Female	19"
FTACVR939S	UHV	Female	39"

Extension Cable

Extension ribbon cable assemblies are fitted with PEEK female connectors at both ends. Female connectors mate directly onto the vacuum side of Subminiature-C feedthroughs, or with male in-vacuum cable connectors.

Extension Cable

Part Number	Service	Connector Type	Length
FTACVR19CC	UHV	Female	19"

GLOBAL VACUUM PRODUCT LINES

VACUUM MART™ DIVISION

Vacuum Valves & Hardware

- Flanges, Components, & Fasteners
- Gate & Angle Valves
- OFHC Copper Gaskets
- Bellows, Tubing, & Seals
- Semiconductor, PV, & FPD Process Valves

Feedthroughs

- Power & High Voltage
- Viewports (Optical Feedthrough)
- Coaxial & Instrumentation
- Thermocouple
- Ferro-Magnetic Fluid Rotary Drives
- USB

Vacuum Pumps & Accessories

- New & Remanufactured
- Rotary Vane & Piston
- Scroll & Diaphragm
- Screw & Roots Blowers
- Turbo & Diffusion
- Cryogenic & Ion
- Traps & Filters
- Complete Offering of Pump Repair Services

Vacuum Fluids

- Full Line of Mechanical Pump Oils
- Fomblin® PFPE - Inert PFPE
- Galden® PFPE - Heat Transfer Fluid
- Vacuum Greases, Sealants, & Solvents
- Pump Oil with R/O Additives
- Silicon Diffusion Pump Oils
- Pump Oil Recycling

Pressure Measurement

- Analog & Digital Active Gauges
- Pressure Indicators & Controllers
- Wide-Range Gauges
- Multi-Gauge Controllers
- Replacement Gauge Tubes
- MKS Baratrons®

Sample Manipulation & Motion

- Rotary & Linear Motion
- Linear Positioners
- Wobble Sticks & Port Aligners
- XYZ Manipulators
- Multi-Axis Manipulators
- Sample Transfer Probes
- Sample Heating & Rotation
- Motion Control
- Sample Distribution Center

Vacuum Services

- Full Line Pump Repair/Rebuild Services
- Pump Oil Recycling
- Technical Information
- Technical Consulting
- Decontamination
- Magnetron Cathode Service
- Contract Manufacturing

PROCESS EQUIPMENT™ DIVISION

Deposition Sources

- Torus® Magnetron Sputtering Sources
- Electron Beam Evaporation
- Organic Material Sources
- Electron Beam Sources
- Ion Sources
- Thermal Evaporation Sources

Process Instrumentation

- Film Thickness
- Mass Flow Controllers
- RF & DC Power Supplies
- Pulsed DC Power Supplies
- Power Supplies for Evaporation

System Components & Custom Engineered Solutions

- Turnkey & Partial Build Solutions
- Comprehensive Engineering Design Support
- Chambers, Frames, & Mounting Structures
- High Temperature & Bakeout Heater Assemblies
- Heater Power Supplies
- Substrate Load Locks & Transfer Vessels

Vacuum Systems

- Thin Film Deposition Systems
- Cluster Tools
- Box Coaters
- General PVD Systems
- Computerized Systems
- Combinatorial Systems
- Organic Material Deposition Systems
- R&D Sputter Tools
- Vacuum Furnaces & Ovens
- Atomic Layer Deposition (ALD)
- Drum Coaters
- In-line & Linear Systems
- R2R Systems

MATERIALS™ DIVISION

Deposition Materials

- Sputtering Targets
- Precious Metals & Reclaim
- Evaporation Pieces
- Thermal Evaporation Sources
- E-Beam Crucible Liners
- Bonding Service
- Backing Plates
- Ceramic Materials Manufacturing (CMM)

MANUFACTURING™ DIVISION

Vacuum Chambers & Components

- Standard SS Cylindrical, D-Shaped, Spherical, & Box Chambers
- Standard Pyrex® Glass Bell Jars & Cylinders
- Standard Building Blocks to Customize Your System
- Custom Chambers
- Array of Finishes & Materials
- Easily Build Your Own Chamber with the Custom Chamber Configurator On-line

Manufacturing & Fabrication

- State-of-the-Art CNC Machining
- Mechanical, Manufacturing, & Industrial Engineering
- Computer Based Scheduling & Routing
- CAD, CAM, & FEA Software
- Coordinate Measuring Machine Inspection (CMM)
- UHV Compatible Cleaning Process

We have a network of representatives around the world ready to service the international vacuum community.

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www.lesker.com/locations

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